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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,789	05/26/2006	Norbert William Sucke	BM-190PCT	7239

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EXAMINER	
NGUYEN, XUAN LAN T	

ART UNIT	PAPER NUMBER
3657	

MAIL DATE	DELIVERY MODE
06/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,789	SUCKE, NORBERT WILLIAM	
	Examiner	Art Unit	
	Lan Nguyen	3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 May 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/26/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of species A in the reply filed on 5/27/09 is acknowledged. This is found persuasive. Therefore, the requirement for an election of species is hereby withdrawn.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "16" and "h16". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed features

"curved narrow faces" in claims 1 and 17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The abstract of the disclosure is objected to because it contains legalese "said". Correction is required. See MPEP § 608.01(b).

5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the invention.

- In claims 1 and 17, the claimed feature "curved narrow faces" is neither described nor illustrated.
- In claim 18, the claimed feature "clamped in place" is neither described nor illustrated.
- The claimed features in claim 22 are not fully explained in details in the specification. It is unknown what is the process of artificially aging the aluminum in order to carry out in a single process.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- The phrases "consisting of" and "at least two" in claim 1 are conflicting with one another because "consisting of" is a close ended phrase while "at least" is an open ended phrase.
- Also in claim 1, "may act on them" is considered to be indefinite because it is not a positive claiming feature.
- The terms "and/or" are not proper alternative claiming language. Please review the claims and correct accordingly.
- In claim 13, the phrase "or preferably" is considered to be indefinite.

- In claims 15 and 16, "in such a way" is considered to be suggestive language and is not positively claiming.
- In claim 22, "such that" is considered to be suggestive language and is not positively claiming.

Due to these deficiencies, claims 1-22 are being treated as best understood.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 1-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherry (6,416,094) in view of Straza et al. (3,888,531).

Re: claim 1, Cherry shows an energy absorber, as in the present invention, comprising: in figures 5 and 11-14, Cherry shows an absorber 15 with flat profiles 18, 19; two parallel broad faces 20, 21; and flat narrow faces as shown in figure 5; wherein the chambers 17 comprises different shapes as shown in figures 5 and 11-14; a force may act on the broad face 21 as shown in figure 1; in figure 5, the ratio of the width of the bumper with respect to the height of the bumper is within the claimed range; and figures 5, 7 teach to vary the wall thickness to achieve a certain desired energy absorption. Claim 1 requires a range of dimension for the wall thickness. This is considered as an engineering design feature. As shown by figures 5 and 7 of Cherry, it

would have been obvious and a common practice for one of ordinary skill in the art to determine a certain wall thickness during the design phase to achieve a desired energy absorption. Cherry mentioned that the absorber 15 is produced by moulding and that elastomeric or plastic materials could be used. Cherry also shows hollow beam 1 as an extruded aluminum hollow beam. It is believed that elastomers, plastic, extruded aluminum, etc. are equivalent materials for the construction of energy absorbers and to have selected one over the other would have been obvious and routine for one of ordinary skill in the art. Cherry shows the absorber to be of multi-layers being produced integrally as one piece while claim 1 requires the absorber to be of at least two pieces joined together along the broad faces. Straza is cited to teach the concept of having multiple layers of energy absorbers 92 securely joined together in figure 9 so that when being damaged, only the damaged layer (or layers) would be replaced. Therefore, the cost of producing and repairing the whole absorber is reduced, column 2, lines 40-50. It would have been obvious to one of ordinary skills in the art at the time of the invention to have produced the absorber of Cherry in individual layers as taught by Straza in order to reduce the cost of producing and repairing the whole absorber.

Re: claims 2, 3, Cherry shows the chambers as claimed.

Re: claims 4-6, Cherry shows the rectangular chambers in figure 13, triangular in figure 14 and circular in figure 12.

Re: claims 7-9 and 12, Cherry shows the chambers and walls as claimed.

Re: claims 10 and 11, the claimed dimensions are considered to be engineering design features.

Re: claim 15, Cherry shows the chambers are parallel to each other longitudinally.

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cherry (6,416,094) in view of Straza et al. (3,888,531) and further in view of Bonnestain (4,221,413).

Cherry's absorber, as modified and rejected above, lacks the chambers being oriented at an angle with one another. Bonnestain teaches that in an absorber, the layers could be stacked with the chambers being parallel with one another in figure 4 or at a 90 degree angle with each other in figure 1. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have arranged the multi-chamber profiles of Cherry, as modified by Straza, so that the chambers are at 90 degree angle with respect to each other as taught by Bonnestain in order to achieve a desired shock absorbing capability, see column 3, lines 54-64.

13. Claims 13, 14 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherry (6,416,094) in view of Straza et al. (3,888,531) and further in view of Sucke (WO 0038874 A1 published 07/06/2000). Please note that US patent 6,648,214 is being used in the rejection, since said US patent is the English equivalent of the WO document.

Re: claims 13 and 14, Cherry's absorber, as modified and rejected above, lacks the method of joining as claimed. Sucke teaches methods of joining extruded aluminum articles as claimed in column 2, lines 7-11 and lines 35-40. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed

the methods of joining extruded aluminum articles by adhesive or thermosetting adhesive as taught by Sucke to join the multi chamber profiles of Cherry as modified; since these methods are well known for their excellent ability to join aluminum articles together.

Re: claim 17, Cherry and Straza provide the structures of the energy absorber as discussed in the rejection of claim 1 above. Sucke is relied upon to teach the method of joining extruded aluminum articles. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the methods of joining extruded aluminum articles by coating adhesive or thermosetting adhesive as taught by Sucke to join the multi chamber profiles of Cherry as modified; since these methods are well known for their excellent ability to join aluminum articles together.

Re: claim 18, it is believed that clamping several articles together so that the adhesive would set to join them securely is a common practice.

Re: claim 19, Sucke shows the use of zinc in column 2, line 25.

Re: claims 20 and 21, Sucke shows the use of thermosetting adhesive and the action of heat in column 2, line 37 and step 11 in figures 1 and 2.

Re: claim 22, Sucke shows the co-extruding process in column 2, lines 7-11.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dahlen, Walker et al., Wada et al., Wilkosz and Gertz et al. are cited for other similar energy absorbers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571) 272-7121. The examiner can normally be reached on Monday through Friday, 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on (571) 272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Xuan Lan Nguyen/
Primary Examiner
Art Unit 3657